DOWNEY BRAND LLP
MELISSA A. THORME (SBN 151278)
CATHERINE W. KILDUFF (SBN 256331)
621 Capitol Mall, Eighteenth Floor
Sacramento, CA 95814
Telephone: (916) 444-1000
Facsimile: (916) 444-2100

Attorneys for Petitioner
BAY AREA CLEAN WATER AGENCIES

BEFORE THE

CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

In the Matter of the Bay Area Clean Water Agencies' Petition for Review of Action and Failure to Act by the California Regional Water Quality Control Board, San Francisco Bay Region, in Adopting Order No. R2-2009-0038, NPDES Permit No. CA0037842 and Waste Discharge Requirements for the San Jose/Santa Clara Water Pollution Control Plant, City of San Jose's sewage collection system, City of Santa Clara's sewage collection system.	PETITION FOR REVIEW; PRELIMINARY POINTS AND AUTHORITIES IN SUPPORT OF PETITION (WATER CODE SECTIONS 13320 AND 13321)

Petitioner Bay Area Clean Water Agencies ("BACWA"), in accordance with section 13320 of the Water Code, hereby petitions the State Water Resources Control Board ("SWRCB" or "State Board") to review Order No. R2-2009-0038 of the California Regional Water Quality Control Board, San Francisco Bay Region, ("RWQCB" or "Regional Board") reissuing National Pollution Discharge Elimination System ("NPDES") Permit No. CA0037842 ("Permit") and Waste Discharge Requirements for the San Jose/Santa Clara Water Pollution Control Plant, City of San Jose's sewage collection system, and City of Santa Clara's sewage collection system ("San Jose/Santa Clara"). A copy of Revised Tentative Order No. R2-2009-0038, adopted on April 8, 2009, is attached to this Petition as **Exhibit A**. The issues and a summary of the bases for the Petition follow. At such time as the full administrative record is available and any other material has been

submitted, BACWA reserves the right to file a more detailed memorandum in support of the Petition and/or in reply to the Regional Board's response.[1]

BACWA is a joint powers authority whose members own and operate publicly-owned treatment works ("POTWs") that discharge treated effluent to San Francisco Bay and its tributaries. Collectively, BACWA's members serve nearly 7 million people in the nine-county Bay Area, treating all domestic, commercial and a significant amount of industrial wastewater. BACWA was formed to develop a region-wide understanding of the watershed protection and enhancement needs through reliance on sound technical, scientific, environmental and economic information and to ensure that this understanding leads to long-term stewardship of the San Francisco Bay Estuary. BACWA member agencies are public agencies, governed by elected officials and managed by professionals, who are dedicated to protecting our water environment and the public health.

On January 21, 2009, BACWA submitted written comments on the tentative versions of the Permit. For the reasons contained herein, BACWA asserts that provisions contained in the recently issued Permit for San Jose/Santa Clara are improper and inappropriate. BACWA believes the issues being raised are vitally important to Bay Area POTWs.

1. NAME, ADDRESS, TELEPHONE, AND EMAIL FOR PETITIONER:

Michele Pla, Executive Director
Bay Area Clean Water Agencies
P.O. Box 24055 MS 702
Oakland, CA 94623
Telephone: (510) 547-1174
Facsimile: (510) 893-8205 Email: mpla-cleanwater@comcast.net

In addition, all materials in connection with this Petition for Review should also be provided to BACWA's special counsel at the following address:

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[1] The State Board's regulations require submission of a statement of points and authorities in support of a petition (23 C.C.R. §2050(a)(7)), and this document is intended to serve as a preliminary memorandum. However, it is impossible to prepare a thorough statement or a memorandum that is entirely useful to the reviewer in the absence of the complete administrative record, which is not yet available.

Melissa A. Thorme
Downey Brand LLP
621 Capitol Mall, Eighteenth Floor
Sacramento, California 95814
Telephone: (916) 444-1000
Facsimile: (916) 444-2100 Email: mthorme@downeybrand.com

2. THE SPECIFIC ACTION OF THE REGIONAL BOARD WHICH THE STATE BOARD IS REQUESTED TO REVIEW:

BACWA seeks review of Order No. R2-2009-0038, reissuing NPDES Permit No. CA0037842 for San Jose/Santa Clara. The specific requirements of the Permit that BACWA requests the State Board to review relate to the following:

A. Numeric-based effluent limits for dioxin-TEQ;

B. Daily maximum effluent limitations; and

C. Compliance schedule action plans for dioxin-TEQ.

The State Board is also requested to review the Regional Board's actions in adopting the Permit for compliance with due process and the California Administrative Procedures Act (Cal. Gov't Code §§11340, *et seq.*); the California Environmental Quality Act ("CEQA," Cal. Pub. Res. Code §21000, *et seq.*); [2] the Porter-Cologne Water Quality Control Act (Cal. Water Code §§13000, *et seq.*); the Clean Water Act ("CWA") (33 U.S.C. §§1251, *et seq.*) and its implementing regulations (40 C.F.R. Parts 122, 123, 130 and 131); the Water Quality Control Plan, San Francisco Bay Region (the "Basin Plan"); and the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California ("SIP").

3. THE DATE ON WHICH THE REGIONAL BOARD ACTED:

The Regional Board adopted the Permit on April 8, 2009.

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[2] Although the Permit at II.E. discusses an exemption from CEQA under Water Code §13389, that exemption is narrow, and only exempts Chapter 3. The remaining non-exempted parts of CEQA require all Regional Boards to consider the environmental consequences of their permitting actions, and to explore feasible alternatives and mitigation measures prior to the adoption of waste discharge requirements. *See, e.g.*, Cal. Pub. Res. Code §21002; 23 C.C.R. §3733 (stating that the exemption in §13389 "does not apply to the policy provisions of Chapter 1 of CEQA").

4. A STATEMENT OF THE REASONS THE ACTION WAS INAPPROPRIATE OR IMPROPER:

A. <u>The Regional Board Improperly Imposed Numeric Effluent Limitations for Dioxin-TEQ.</u>

BACWA has been concerned about the imposition of numeric effluent limitations for dioxin since the California Toxics Rule ("CTR") was promulgated, notwithstanding that regulations' promise that the "rule would not impose undue or inappropriate burden on the State of California or its dischargers." 65 Fed. Reg. 31,687 (May 18, 2000). BACWA was initially hopeful that the United States Environmental Protection Agency's ("USEPA") prediction that costs to meet the CTR criteria would be "unlikely to reach the high-end of the [cost] range because State authorities are likely to choose implementation options that provide some degree of flexibility or relief to the point source dischargers" was accurate; unfortunately, in practice, this has not been the case. *Id.* at 31,706. The purpose of this petition is to request that the State use its presumed flexibility when issuing discharge permits where compliance with water quality criteria (whether these criteria are CTR criteria or narrative objectives) has been demonstrated to be infeasible.

The Permit BACWA is appealing contains final and interim concentration limits for dioxin-TEQ. *See* Permit at pgs. 12, 13. Similar limits were challenged by BACWA in previous administrative and court appeals. Unfortunately, the Regional Board is not upholding some of the holdings of those previous appeals. BACWA tried for several years to settle the outstanding petitions on Bay Area POTW permits filed since 2000 by BACWA and others, but disagreement as to legal requirements prevented consummation of a global settlement. Because these issues remain as important today as they did nine years ago, or perhaps more important since the time for final compliance with CTR criteria becomes shorter every day, BACWA continues to press for a final ruling to re-incorporate the "flexibility or relief" promised over the years.

BACWA believes that the Regional Board included final numeric water quality-based effluent limitations ("WQBELs") for dioxin-TEQ in the Permit that are contrary to the requirements of the CWA and state law.[3] In most cases, these numeric limitations have been demonstrated to be

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[3] The Regional Board must ensure its actions to implement the CWA are consistent with any applicable provisions of the CWA and its implementing regulations. Cal. Water Code §13372.

infeasible to meet,[4] and could result in the permitted entities having to construct expensive new treatment facilities before June 1, 2019 in order to meet the final effluent limits, if the technology even exists to provide such treatment. These treatment technologies far exceed the mandated treatment requirements of the CWA and will likely become unnecessary once new water quality objectives, site specific objectives, or TMDLs for this substance is in place and finally approved.[5] Such a waste of resources is neither reasonable nor required (*see* Water Code §13000), and ignores the fact that control of dioxin-TEQ may instead require a "carefully conceived, agency-approved, long-term pollution control procedure for a complex environmental setting." *Communities for a Better Environment v. SWRCB*, 109 Cal.App.4th 1089, 1107 (2003) ("*Tesoro* case"). For these reasons, BACWA challenges these limits as being contrary to federal and state law requirements.

1) Numeric Effluent Limitations are Not Required.

The Regional Board has imposed numeric WQBELs for various constituents in the Permit based on 40 C.F.R. §122.44(d). *See* Permit at pgs.12, 13. However, as explained below, section 122.44(d) does not require the imposition of *numeric* WQBELs.

EPA regulations require that "each NPDES permit shall include the following requirements when applicable." *See* 40 C.F.R. § 122.44 (emphasis added). Subsection (d) of this section imposes "any requirements in addition to or more stringent than promulgated effluent limitations

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[4] As defined by SWRCB Policy, "infeasible" means "not capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors." *See* SIP at Appendix 1-3.

[5] Courts have recognized a step-wise process in pollutant control. In *San Francisco BayKeeper v. Whitman*, 287 F.3d 764,766-767 (April 15, 2002), the Ninth Circuit Court of Appeals determined that:

> "[w]hen the NPDES system fails to adequately clean up certain rivers, streams or smaller water segments, the Act requires the use of a water-quality based approach. States are required to identify such waters, which are to be designated as 'water quality limited segments' ('WQLSs'). The states must then rank these waters in order of priority, and based on that ranking, institute more stringent pollution limits called 'total maximum daily loads' or 'TMDLs.' 33 U.S.C. §§1313(d)(1)(A), (C). TMDLs are the maximum quantity of a pollutant the water body can receive on a daily basis without violating the water quality standard. The TMDL calculations are to ensure that the cumulative impacts of multiple point source discharges are accounted for, and are evaluated in conjunction with pollution from non-point sources. States must ***then*** institute whatever additional cleanup actions are necessary, which can **include further controls on both point and nonpoint pollution sources**." (emphasis added).

Thus, the Court reasoned that the TMDL program is the tool for correcting water quality impairments when they are deemed to exist, not continued ratcheting down under the NPDES permitting program. Any other determination would render the TMDL program superfluous.

guidelines or standards under sections 301, 304, 306, 307, 318 and 405 of the CWA necessary to achieve water quality standards established under Section 303 of the CWA, including State narrative criteria for water quality . . ." 40 C.F.R. § 122.44(d) (emphasis added). The regulations require the imposition of "requirements," not numeric effluent limitations. Furthermore, when numeric effluent limitations are infeasible, EPA regulations specifically authorize the use of Best Management Practices ("BMPs") and other non-numeric or narrative requirements in lieu of numeric limits. 40 C.F.R. §122.44(k)(3); *see also* SWRCB Order No. WQ 2003-12 at pg. 9. Alternatively, the Regional Board could have styled this Permit after recent permits in the Central Valley Region, which have imposed final numeric limits, but stated that these limits do not apply if the discharger undertakes certain actions. *See* Order Nos. R5-2007-0036 and R5-2007-0039. This approach, which USEPA did not veto, takes a creative approach to dealing with infeasible final limits without the necessity of compliance schedules.

The California Court of Appeal in the *Tesoro* case specifically ruled on this issue and stated that numeric limits are not required, and that, where infeasibility is demonstrated, numeric limits can be replaced with non-numeric requirements. *See Communities for a Better Environment v. SWRCB*, 109 Cal.App.4th at 1103-1105; *see accord In the Matter of the Petition of Citizens for a Better Environment, Save San Francisco Bay Association, and Santa Clara Audubon Society*, SWRCB Order No. WQ 91-03 (May 16, 1991). This appellate decision is binding on the State Board as a party to that case and must be followed in the case of this Permit.

By including final numeric effluent limitations in lieu of non-numeric or narrative requirements where numeric limits have been demonstrated to be infeasible, the Regional Board exceeded federal law requirements. If the Regional Board chooses to exceed federal law requirements, then it must comply with state law requirements. *City of Burbank, et al v. SWRCB, et al.*, 35 Cal. 4th 613, 627-628 (2005). However, the Regional Board failed to comply with the requirements of Water Code §13263(a), which requires consideration of several factors, including those contained in Water Code §13241, when adopting numeric effluent limitations more stringent than required by federal law into this Permit.

Thus, the State Board should remand the Permit to the Regional Board and direct the Regional Board to comply with the provisions of 40 C.F.R. §122.44(k)(3), by removing the numeric concentration-based effluent limits for dioxin-TEQ where compliance with such limits has been demonstrated to be infeasible, and replace these numeric limits with narrative requirements (source control, best management practices, etc.) in lieu of the numeric limits.[6]

2) Dioxin-TEQ Limits

The Permit contains the following final effluent limitations for dioxin-TEQ:

AMEL (µg/L)	MDEL (µg/L)	Effective Date
1.4×10^{-8}	2.8×10^{-8}	6/01/2019

The CTR did not promulgate numeric water quality criteria for dioxin-TEQ, only for 2,3,7,8-tetrachlorodibenzo-p-dioxin ("2,3,7,8-TCDD"). In addition, no aquatic life criteria were promulgated in the CTR or the Basin Plan for dioxin-TEQ. Only a human-health criteria for municipal ("Water & Organisms"), and non-municipal drinking water supply waters (*e.g.*, "Organisms Only") were set at 0.000000013 and 0.000000014 µg/L, respectively, based on a carcinogenicity risk of $1x10^{-6}$. 40 C.F.R. §131.38(b)(1)(#16). These figures are based on an assumed exposure pathway of consumption of 6.5 grams per day of organisms from the Bay that are contaminated at a level equal to the criteria concentration, but multiplied by a "bioconcentration factor." 65 Fed. Reg. 31,693 (May 18, 2000). This amount can be consumed over a lifetime (70 years) without expecting an adverse effect. *Id.* However, current detection technologies cannot measure to these levels.

Neither the Permit nor the accompanying Fact Sheet demonstrated reasonable potential for 2,3,7,8-TCDD. *See* Permit at pg. F-27. However, the same table containing the reasonable potential analysis ("RPA") shows reasonable potential ("RP") for dioxin-TEQ, even though no adopted water quality criteria or objective exists for dioxin-TEQ upon which a RPA could be

[6] Such an action would negate the need for compliance schedules as well since San Jose/Santa Clara would presumably be able to immediately comply with narrative requirements for the constituents at issue.

performed.[7] The Regional Board's action in finding reasonable potential in the absence of applicable numeric water quality criteria was unreasonable, in violation of Water Code §13000, and 40 C.F.R. §122.44(d).

The number used in the RPA for dioxin-TEQ was exactly the same as the promulgated criterion for 2,3,7,8-TCDD. The Permit provides:

> To determine if the discharge of dioxin or dioxin-like compounds from the discharge has reasonable potential to cause or contribute to a violation of the Basin Plan's narrative bioaccumulation WQO, Regional Water Board staff used TEFs [Toxic Equivalent Factors] to express the measured concentrations of 16 dioxin congeners in effluent and background samples as 2,3,7,8-TCDD. These "equivalent" concentrations were then compared to the CTR numeric criterion for 2,3,7,8-TCDD (1.4×10^{-8} µg/L). Although the 1998 WHO scheme includes TEFs for dioxin-like PCBs, they are not included in this Order's version of the TEF procedure. The CTR has established a specific WQS for dioxin-like PCBs, and they are included in the analysis of total PCBs.

See Permit at pg. F-33. Given that 11 years have passed since the TEFs were first adopted by the World Health Organization, it is unreasonable for the Regional Board to continue to use a broad narrative objective and not adopt numeric objectives and an implementation plan through a formal rulemaking process as required by Water Code §13241 and §13242, and the triennial review process required by CWA section 303, 33 U.S.C. §1313(c) and (e). The use of a narrative objective to indefinitely skirt state law requirements also ignores the congressional mandate that water quality standards criteria "shall be specific numeric criteria for such toxic pollutants." 33 U.S.C. §1313(c)(2)(B) (emphasis added).

Moreover, the Permit mixes criteria in order to create a finding of RP. The Permit states that "because the MEC (1.9×10^{-8} µg/L) exceeds the applicable WQC (1.4×10^{-8} µg/L)," this somehow demonstrates RP. *See* Permit at pg. F-33 para. (4)(ii). The Regional Board should not be allowed to mix and match 2,3,7,8-TCDD and dioxin-TEQ in order to find RP; they must use each independently, taking into account the different TEF values for each cogener, in order to properly determine RP. The Regional Board did not do this, and these limits should be overturned.

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[7] It should be noted that this is contrary to the RPA for other constituents where the Permit states "No Criteria" in the

a) The Regional Board Improperly Utilized the Basin Plan's Narrative Objective for Bioaccumulation to Justify the Imposition of a Dioxin-TEQ Limit.

In adopting a numeric effluent limitation for dioxin-TEQ, the Regional Board attempted to justify its actions by claiming that the applicable water quality objectives specified in the Basin Plan require limits to protect against unsafe levels of dioxin in the fatty tissue of fish and other organisms. *See* Permit at pg. F-32-33. The Basin Plan contains no numeric objectives specifically set to define acceptable levels of these constituents in fish tissue or sediment, and the CTR only set numeric criteria for 2,3,7,8-TCDD, not for all the congeners of dioxins. Thus, the Regional Board improperly relied upon the Basin Plan's narrative objective for Bioaccumulation to justify limits for dioxin-TEQ.

In addition, the Regional Board improperly lumped together all of the congeners of dioxin and furans. Had the RPA been done on each individual congener, most if not all would not show reasonable potential because of the varying TEF for each. *See* Permit at pg. F-33. However, pooling all of the congeners together creates an unnecessary finding of reasonable potential for all congeners. The Regional Board's inclusion of an effluent limit for dioxin-TEQ based on all of the congeners of dioxins and furans improperly ignores that the congeners do not create reasonable potential. Imposition of limits on congeners without reasonable potential violates the specific mandates of the Basin Plan and federal regulations.[8]

A review of the Bioaccumulation objective demonstrates that this objective does not provide authorization for the numeric limits imposed in this instance. The Bioaccumulation objective found on page 3-2 of the Basin Plan provides:

> Many pollutants can accumulate on particles, in sediment, or bioaccumulate in fish or other aquatic organisms. Controllable water quality factors shall not cause a detrimental increase in concentrations of toxic substances found in bottom sediments or aquatic life. Effects on aquatic organisms, wildlife, and human health will be considered.

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table instead of inserting a non-promulgated criteria. *See* Permit at pg. F-27-29.

[8] The insertion of limits without reasonable potential is contrary to permit findings that state "WQBELs are not included in this Order for constituents that do not demonstrate Reasonable Potential." *See* Permit at pg. F-29, para. D.3.g.

(emphasis added). Courts have acknowledged that the presence of dioxin may be beyond the Discharger's control. *See, e.g., Communities for a Better Environment*, 109 Cal.App.4th at 1096

> ("Dioxins are not produced intentionally. They are formed as undesired byproducts of combustion and the manufacture and use of certain chlorinated chemical compounds. They exist in the environment worldwide, particularly in air, water, soils, and sediments. They enter the atmosphere through aerial emissions and widely disperse through a number of processes, including erosion, runoff, and volatilization from land or water. For example, automobile exhaust is a common source of dioxins.")

Therefore, control of all of these sources is not within the jurisdiction of San Jose/Santa Clara. Because the minimal contribution of dioxin-TEQ by San Jose/Santa Clara's POTW is not a "controllable water quality factor" that is causing a "detrimental increase in concentrations of toxic substances found in bottom sediments or aquatic life," imposing a limit for dioxin-TEQ is neither necessary nor based upon the findings and evidence.

Additionally, a numeric effluent limitation can only be imposed through a narrative water quality objective if the narrative objective contains an appropriate mechanism to "translate" the narrative requirement (*i.e.*, to translate a narrative objective into a concentration or mass effluent limitation).[9] In order for a numeric limit derived from a narrative objective to be appropriate, the derivation of the numeric limit must be transparent. A clear explanation of the translation from the narrative water quality objective must be set forth in the NPDES permit. [10] *See* 40 C.F.R.

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[9] Federal regulations mandate that "[w]here a State adopts narrative criteria for toxic pollutants to protect designated uses, the State must provide information identifying the method by which the State intends to regulate point source dischargers of toxic pollutants on water quality limited segments based on such narrative criteria. Such information may be included as part of the standards . . . ." 40 C.F.R. §131.11(a)(2). Since the Basin Plan's narrative objective for Bioaccumulation does not contain an appropriate translation mechanism, the only conclusion can be that subjective, arbitrary, or wholly inapplicable WQBELs for dioxin-TEQ have been imposed in the Permit. The rationale in the *EBMUD* Order, SWRCB Order No. WQ 2002-0012 at pgs. 6-7 does not apply in this case, since the dioxin-TEQ limits are final WQBELs and were not adopted in conformance with federal regulations as there are no 304(a) guidance criteria for dioxin-TEQ. *See* http://www.epa.gov/waterscience/criteria/wqcriteria.html.

[10] In EPA's official guidance documents, EPA explains at length the process the State must go through to implement an adequate translator mechanism. *See* EPA Water Quality Standards Handbook at 3-13 to 3-26 (1994). Among other things, EPA provides that a State's translator procedure for narrative criteria should specifically describe:

- specific, scientifically defensible methods by which the state will implement its narrative toxicity standard for all priority pollutants;
- how these methods will be integrated into the State's priority pollutant control program;
- methods the State will use to identify those pollutants to be regulated in a specific discharge;
- an incremental cancer risk for carcinogens;

§124.8(b)(4); *Topanga Ass'n for a Scenic Community v. County of Los Angeles*, 11 Cal. 3d 506, 515 (1974); *California Edison v. SWRCB*, 116 Cal. App. 3d 751, 761 (1981); *see also In re Petition of the Pinole-Hercules Water Pollution Control Plant and County of San Francisco*, State Board Order No. WQ-95-4 at 10 (Sept. 21, 1995). The failure by the Regional Board to clearly enunciate the translation from a narrative objective to a numeric limit in the Findings or Fact Sheet of the Permit was an abuse of discretion.

Moreover, the Permit fails to show that dioxin-TEQ levels in the discharge have caused a detrimental impact in concentrations of toxic substances found in bottom sediments or aquatic life. Without such a showing, no limits may be imposed under the narrative bioaccumulation objective.

b) Meeting the Dioxin Concentration Limit is Not Feasible

As stated above, dioxins enter the environment from a variety of sources, primarily combustion sources. *See Communities for a Better Environment*, 109 Cal. App. 4th at 1096 ("automobile exhaust is a common source of dioxins."). Further, the Regional Board has concurred with San Jose/Santa Clara that compliance with the dioxin-TEQ limits is infeasible. *See* Permit at pg. F-33-34. For these reasons, numeric effluent limitations were not required and represent an abuse of discretion.[11]

B. The Regional Board Improperly Included Daily Maximum Effluent Limitations.

Where effluent limitations are authorized, federal regulations provide that for discharges from POTWs, all permit effluent limits shall, unless impracticable, be stated as average weekly and

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- methods for identifying compliance thresholds in permits where calculated limits are below detection;
- methods for selecting appropriate hardness, pH, and temperature variables for criteria expressed as functions;
- methods or policies controlling the size and in-zone quality of mixing zones;
- design flows to be used in translating chemical-specific numeric criteria for aquatic life and human health into permit limits; and
- other methods and information needed to apply standards on a case-by-case basis.

Id. at 3-25; *see also* EPA, TSD for Water Quality-Based Toxics Control at 30-31(1991).

[11] The Regional Board should have done what it did in the Vallejo permit, Order No. R2-2006-0056, which was to state: "Due to the limited monitoring data, no dioxin limits (final or interim) are established. The final limits for dioxin TEQ will be based on the WLA assigned to the Discharger in the TMDL. This Order requires additional dioxin monitoring to complement the Clean Estuary Partnership's special dioxin project, consisting of impairment, assessment, and a conceptual model for dioxin loading into the Bay. The permit will be reopened, as appropriate, to include interim dioxin limitations when additional data become available." Order No. R2-2006-0056 at pg. F-24.

average monthly discharge limitations.[12] 40 C.F.R. § 122.45(d)(2). The Permit contains several unsupported daily maximum limits, including, among others, the limit for dioxin-TEQ. *See* Permit at pg. 12.

In order to justify the inclusion of these daily limits, the Regional Board first cited to the language of 40 C.F.R. §122.45(d)(1), which states that: "For continuous discharges all permit effluent limitations, standards, and prohibitions, including those necessary to achieve water quality standards shall unless impracticable be stated as maximum daily and average monthly discharge limitations for all discharges other than publicly owned treatment works." *See* Permit at pg. F-22, para. D.1.b.(1). This citation ignores that these discharges *are* from a publicly owned treatment work, and the rule for such a facility is that "average weekly and average monthly discharge limitations [apply] for POTWs." 40 C.F.R. §122.45(d)(2). Therefore, this first justification for daily limits fails.

The second justification also fails. *See* Permit at pg. F-20, para. D.1.B.(2). The State Implementation Policy (SIP) did not change the federal requirements. In enacting the SIP, the State Board may have attempted to modify the federal regulatory prohibition on the use of daily maximum limits for POTWs by stating: "For this method only [referring to limits for aquatic life protection] maximum daily effluent limitations shall be used for publicly-owned treatment works (POTWs) in place of average weekly limitations." SIP at 8, §1.4. However, prior to authorizing the use of daily maximum limitations in POTW permits for compliance with aquatic life criteria in the SIP, the State Board did not make the required demonstration that the imposition of average weekly and average monthly effluent limitations for the protection of aquatic life was "impracticable" per the requirements of 40 C.F.R. §122.45(d). Therefore, the State Board's authorization of daily maximum limitations for compliance with aquatic life criteria does not meet federal requirements or California Water Code Chapter 5.5 requirements for consistency with federal requirements. As such, the Regional Board should remove all daily maximum effluent limitations based on aquatic life criteria.

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[12] Federal regulations also provide that discharges from all dischargers other than POTWs, effluent limitations shall be stated as maximum daily and average monthly discharge limitations. 40 C.F.R. §122.45(d)(1).

Further, the State Board did not include in the SIP the same language purportedly allowing for the inclusion of daily maximum limitations in POTW permits for effluent limitations based upon technological requirements (for conventional pollutants) or upon human health criteria. Therefore, even if the SIP provisions pertaining to maximum daily limits for aquatic life criteria were valid, 40 C.F.R. §122.45(d) requires the Regional Board to remove all daily maximum interim and final effluent limitations based on human health criteria or technological requirements. The criteria for 2,3,7,8-TCDD is human health-based. *See* 40 CFR §131.38(b)(1)(16). Thus, daily maximum limits are not necessary.

The Permit never specifies why monthly and weekly average limits are impracticable. The Permit merely states that "MDELs are used in this Order to protect against acute water quality effects. The MDELs are necessary for preventing fish kills or mortality to aquatic organisms." Permit at pg. F-22, para. D.1.c. These statements do not constitute an impracticability analysis, and are inadequate to justify daily limits as there is no evidence to support such generic findings.

Furthermore, at most, these justifications would address only limits based on acute aquatic life criteria. However, the Regional Board did not include limits based on acute aquatic life protection, rather, the limits for dioxin-TEQ are based on long-term chronic human exposure. *See In the Matter of the Own Motion Review of the City of Woodland,* SWRCB Order No. WQ 2004-0010 (holding that "implementing the limits as instantaneous maximums appears to be incorrect because the criteria guidance value . . . is intended to protect against chronic effects").

Therefore, the Regional Board's inclusion of daily maximum effluent limitations in the Permit, without a specific, pollutant-by-pollutant impracticability analysis, violated 40 C.F.R. §122.45(d)(2) and Water Code Chapter 5.5. By violating federal and state law, the Regional Board proceeded without, or in excess of, its jurisdiction and has committed a prejudicial abuse of discretion by not proceeding in a manner required by law. For these reasons, the State Board should direct the Regional Board to remove the daily maximum effluent limitations not properly analyzed for impracticability. *See accord* SWRCB Order No. 2002-0012 at pg. 20-21 (July 18, 2002) ("the Regional Board must include a finding in the permit on remand explaining the impracticability of weekly average limits."); SWRCB Order No. 2002-0015 at pg. 56; *City of Woodland v. Regional*

Water Quality Control Board for the Central Valley Region, and SWRCB, Case No. RG04-188200, Statement of Decision at pg. 20.

C. The Regional Board Improperly Imposed A Compliance Schedule Action Plan for Dioxin-TEQ in the Permit which is Overly Stringent.

BACWA is concerned that having stringent schedules contained in the Permit will eventually require the construction of capital facilities when BACWA has repeatedly been told that building additional treatment is not the expected direction of the Bay Area water quality program. BACWA was under the impression that the direction was to pursue regulatory alternatives, such as TMDLs, site specific objectives, and pollution prevention (as described in the implementation plan for the mercury TMDL). The Permit veers way off this intended direction.

Also, this Permit contains a compliance schedule for dioxin-TEQ, which cannot be source controlled, or for which wastewater treatment plant effluents have been identified as non-significant sources. *See* Permit at pg. 30-31. Additionally, dioxin-TEQ is already being addressed through an alternative regulatory strategy that will appropriately resolve beneficial use concerns for the San Francisco Bay. The compliance schedule in the Permit is overly burdensome for dioxin-TEQ, as specified below.

The dioxin congeners found in fish tissue samples, which formed the initial basis for the dioxin 303(d) listing, are different than the congeners detected in publicly-owner treatment works. Given that the sources of dioxin are uncontrollable by municipal wastewater treatment plants and are primarily introduced through air deposition, the compliance requirements for dioxin reduction in the effluent will have little, if any, environmental benefit to reduce the concentrations of dioxin congeners found in fish tissue. Thus, a *de minimis* exception should be granted in this case at least until the TMDL is finalized. *See Ober v. USEPA*, 243 F.3d 1190, 1195 (9th Cir. 2001) ("de minimis exception is allowed for regulation yielding trivial gain.").

For these reasons, the action plans in the Permit should be revised to remove all activities related to installation of capital improvements. In addition, any pollution prevention activities should be identical to resolutions or orders already adopted by the Regional Board for specific constituents. No new or different activities should be required for dioxin-TEQ.

5. THE MANNER IN WHICH THE PETITIONER IS AGGRIEVED:

The Permit includes requirements, challenged herein, which are unreasonable, contrary to legal requirements, and not supported by the findings and evidence in the administrative record. The limits for dioxin-TEQ are unreasonable because San Jose/Santa Clara has extremely limited control over influent sources. Further, these requirements could ultimately impose considerable costs on the agency's ratepayers for potential mandatory and discretionary penalties imposed for non-compliance with the challenged requirements, or for construction of additional treatment units to meet limits imposed without a demonstration that such requirements would result in material improvements in the water quality of the Bay. In fact, such expenditures could have a negative impact on water quality, by diverting limited public funds away from other projects that might have a higher potential for improvements in water quality.

BACWA is aggrieved by unreasonable permit prohibitions that may put San Jose/Santa Clara in non-compliance with the Permit. BACWA's membership will be aggrieved by any permit provisions that cannot now or in the future be met as federal and state law provide harsh sanctions for non-compliance with effluent limitations in a wastewater discharge permit. For example, California Water Code §13385 prescribes mandatory minimum penalties of $3,000 per day per violation, with narrow exceptions. With this statute, the State has no latitude to excuse noncompliance with the Permit.

Other statutory provisions, while not setting mandatory minimum penalties, create even greater exposure for BACWA's members. The CWA authorizes civil penalties of up to $32,500 per day per violation, 33 U.S.C. § 1319(d), and also authorizes criminal penalties, including the incarceration of public officials, for knowing or negligent permit violations. 33 U.S.C §1319(c); *see U.S. v. Weitzenhoff*, 35 F.3d 1275 (9th Cir. 1994) (managers of treatment plant convicted of permit violations). In addition to enforcement by administrative agencies, private parties can seek civil penalties pursuant to the "citizen suit" provisions of the CWA. *See* 33 U.S.C. §1365.

Likewise, California's Porter-Cologne Water Quality Act contains stiff penalties for violation of effluent limitations in a wastewater discharge permit. *See* Cal. Water Code §§ 13385 and 13387. This act authorizes a penalty of up to $25,000 per day per violation, with additional

liability not to exceed $25 per gallon if the discharge is to navigable waters of the United States and either is "not susceptible to cleanup or is not cleaned up." Cal. Water Code §13385(b)(1)-(2), (d). The act also establishes criminal liability for intentional or negligent violation of effluent limitations contained within a permit. Cal. Water Code §13387(a)-(d).

Furthermore, the application of illegal or unreasonable effluent limitations in violation of federal and state law causes substantial harm to BACWA and its members that have a vested interest in complying with the law. This appeal furthers one of BACWA's express purposes, which is "to represent the interests of the Agency or one or more Member Agencies, including, without limiting the generality of the foregoing, by participating in the appeal of or court challenge of the issuance or denial of issuance of NPDES permits or the adoption or amendment of water quality orders, regulations or decisions."

6. THE SPECIFIC ACTION BY THE STATE OR REGIONAL BOARD WHICH PETITIONER REQUESTS:

Petitioner seeks an Order by the State Board that will remand Order No. R2-2009-0038 to the Regional Board for revisions and will direct the Regional Board to:

A. Remove the numeric effluent limits for dioxin-TEQ;

B. Remove daily maximum effluent limitations where the Regional Board failed to conduct an impracticability analysis; and

C. Revise the compliance schedule action plan for dioxin-TEQ to (1) remove all activities related to installation of capital improvements and (2) ensure that any pollution prevention activities are identical to resolutions or orders already adopted by the Regional Board.

7. A STATEMENT OF POINTS AND AUTHORITIES IN SUPPORT OF LEGAL ISSUES RAISED IN THE PETITION:

BACWA's preliminary statement of points and authorities is set forth in Section 4 above. Nevertheless, BACWA reserves the right to supplement this statement upon receipt and review of the administrative record.

In Section 4, BACWA asserts that provisions of the Permit are inconsistent with the law and otherwise inappropriate for various reasons, including: failure to comply with the Porter-Cologne Water Quality Control Act (Cal. Water Code, §§ 13000 *et seq.*); failure to comply with the CEQA (Cal. Public Resources Code, §§ 21000 *et seq.*, and 23 C.C.R. § 3733); failure to comply with the APA (Cal. Gov't Code, §§ 11340 *et seq.*); inconsistency with the Water Quality Control Plan, San Francisco Bay Region (Basin Plan); inconsistency with the Clean Water Act (33 U.S.C. §§ 1251 *et seq.*) and its implementing regulations (40 C.F.R. Parts 122, 123, 130, and 131); inconsistency with EPA guidance (EPA's Water Quality Standards Handbook (1994, 3d edition)); absence of findings supporting the provisions of the Order; Regional Board findings that are not supported by the evidence; and other grounds that may be or have been asserted by Petitioner.

8. A STATEMENT THAT THE PETITION HAS BEEN SENT TO THE REGIONAL BOARD AND TO THE DISCHARGER:

A true and correct copy of this Petition was mailed by First Class mail on May 8, 2009, to the Discharger, and to the Regional Board at the following address:

Bruce Wolfe, Executive Officer
California Regional Water Quality Control Board,
San Francisco Region
1515 Clay Street, Suite 1400
Oakland, California 94612

9. A STATEMENT THAT THE SUBSTANTIVE ISSUES AND OBJECTIONS RAISED IN THE PETITION WERE RAISED BEFORE THE REGIONAL BOARD, OR AN EXPLANATION WHY NOT:

The substantive issues and objections were raised before the Regional Board in this permitting action through written comments.

10. PETITIONER'S REQUEST FOR ABEYANCE:

Notwithstanding the vital importance of the issues contained herein, BACWA requests that the State Board place BACWA's Petition for Review in abeyance pursuant to 23 C.C.R. §2050.5(d) to allow time for BACWA to attempt to resolve its concerns with the Regional Board informally.

DATED: May 7, 2009

Respectfully submitted,

Melissa A. Thorme
DOWNEY BRAND LLP
BACWA Special Counsel

EXHIBIT A

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

Linda S. Adams
Secretary for
Environmental Protection

San Francisco Bay Region
1515 Clay Street, Suite 1400
(510) 622-2300 • Fax (510) 622-2460
http://www.waterboards.ca.gov/sanfranciscobay

Arnold Schwarzenegger
Governor

REVISED TENTATIVE ORDER
NPDES PERMIT NO. CA0037842

The following Discharger is subject to waste discharge requirements as set forth in this Order.

Table 1. Discharger Information

Discharger	City of San Jose, City of Santa Clara, San Jose/Santa Clara Water Pollution Control Plant, a joint powers authority
Name of Facility	San Jose/Santa Clara Water Pollution Control Plant, City of San Jose's sewage collection system, City of Santa Clara's sewage collection system
Facility Address	700 Los Esteros Road
	San Jose, CA 95134
	Santa Clara County
The U.S. Environmental Protection Agency (USEPA) and the Regional Water Quality Control Board have classified this discharge as a major discharge.	

The discharge by the facility, consisting of the San Jose/Santa Clara Water Pollution Control Plant, the City of San Jose's sewage collection system, and the City of Santa Clara's sewage collection system, from the discharge point identified below is subject to waste discharge requirements as set forth in this Order.

Table 2. Discharge Location

Discharge Point	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
001	Tertiary-treated POTW Effluent	37° 26′ 23.38″ N	121° 57′ 29.18″ W	Artesian Slough (Tributary to South San Francisco Bay via Coyote Creek)

Table 3. Administrative Information

This Order was adopted by the Regional Water Board on:	April 8, 2009
This Order shall become effective on:	June 1, 2009
This Order shall expire on:	May 31, 2014
The Discharger shall file a Report of Waste Discharge in accordance with title 23, California Code of Regulations, as application for issuance of new waste discharge requirements no later than:	180 days prior to the Order expiration date

I, Bruce H. Wolfe, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on April 8, 2009.

Bruce H. Wolfe, Executive Officer

Table of Contents

Tables

Attachments

I. FACILITY INFORMATION

The following Discharger is subject to the waste discharge requirements as set forth in this Order:

Table 4. Facility Information

Discharger	City of San Jose, City of Santa Clara, San Jose/Santa Clara Water Pollution Control Plant, a joint powers authority
Name of Facility	San Jose/Santa Clara Water Pollution Control Plant, City of San Jose's sewage collection system, and City of Santa Clara's sewage collection system
Facility Address	700 Los Esteros Road San Jose , CA 95134 Santa Clara County
Facility Contact, Title, and Phone	David Tucker, Program Manager, (408) 945-5316
Mailing Address	Same as Facility Address
Type of Facility	Publicly Owned Treatment Works (POTW)
Facility Design Flow	167 million gallons per day (MGD) (average dry weather flow design capacity with full tertiary treatment) 271 MGD (peak wet weather flow design capacity with full tertiary treatment)
Service Area	Cities of San Jose, Santa Clara, and Milpitas; Santa Clara County Sanitation Districts No. 2 and No. 3; the West Valley Sanitation District including Campbell, Los Gatos, Monte Sereno and Saratoga; and the Cupertino, Burbank, and Sunol Sanitary Districts
Service Area Population	1,365,000

II. FINDINGS

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter the Regional Water Board), finds:

A. Background. The City of San Jose and the City of Santa Clara (hereinafter collectively the Discharger) own the San Jose/Santa Clara Water Pollution Control Plant (Plant) through a Joint Powers Agreement (JPA), and the City of San Jose operates the Plant as the administering agency of the JPA. The City of San Jose and the City of Santa Clara individually own and operate their respective collection systems. The discharge of treated wastewater from the Plant has been regulated under Order No. R2-2003-0085 (previous Order) and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0037842. The Discharger submitted a Report of Waste Discharge (ROWD) on April 1, 2008, and applied for reissuance of its NPDES permit to discharge tertiary treated wastewater from the Plant to waters of the State and the United States.

For the purposes of this Order, references to the "discharger" or "permittee" in applicable federal and state laws, regulations, plans, or policy are held to be equivalent to references to the Discharger herein.

B. Facility and Discharge Description

1. **Facility Description.** The Plant is located at 700 Los Esteros Road, San Jose, Santa Clara County. The Plant provides tertiary treatment of domestic, commercial and industrial wastewater collected from its service areas as indicated in Table 4 above. The Plant and the collection systems belonging respectively to the City of San Jose and City of Santa Clara are

collectively the facility. The current total service area population is approximately 1.4 million.

Wastewater treatment processes at the Plant include screening and grit removal, primary sedimentation, secondary treatment by the activated sludge process, secondary clarification, filtration, disinfection, and dechlorination. The Plant is designed to route fully treated secondary effluent flow in excess of the tertiary filtration design capacity of 250 MGD around the filters during extreme wet weather flow events, and to recombine it with filter effluent prior to disinfection.

The City of San Jose's sanitary sewer system consists of approximately 2,200 miles of sewer pipes (which vary in size from 6 inches to 90 inches in diameter), 45,000 manholes and 16 pump stations. The collected wastewater is conveyed to the Plant by major interceptor pipelines located in the northern part of San Jose.

The City of Santa Clara's sanitary sewer system consists of approximately 270 miles of sewer mains. The sanitary sewer system also includes two large pump stations, each with a flow meter, and four smaller un-metered lift stations. The system includes over 5,300 manholes, 2 force mains (totaling 4 miles), 26 siphons, and an additional main line meter station to measure flow at the Guadalupe outfall to the conveyance pipe to the Plant.

2. **Discharge Description.** Treated wastewater from the Plant flows into Artesian Slough (37° 26′ 23.38″ Latitude and 121° 57′ 29.18″ Longitude), tributary to Coyote Creek and South San Francisco Bay. The Plant has an average dry weather flow design capacity of 167 million gallons per day (MGD), and a 271 MGD peak hourly flow capacity for full tertiary treatment. The average dry weather flow based on flows of three consecutive months was 99 MGD during 2005–2007, the average effluent flow rate was 108 MGD, based on flow data from 2004–2008, and the maximum daily effluent flow rate from 2006–2008 was 133 MGD.

3. **Satellite Collection Systems.** The Plant serves multiple cities and wastewater districts as indicated in Table 4 above. In addition to the City of San Jose's and the City of Santa Clara's respective collection systems, wastewater is conveyed to the Plant from several satellite collection systems serving the City of Milpitas; Santa Clara County Sanitation Districts No. 2 and No. 3; the West Valley Sanitation District, including Campbell, Los Gatos, Monte Sereno and Saratoga; and the Cupertino, Burbank, and Sunol Sanitary Districts. The satellite collection systems are not part of the facility subject to the requirements of this Order. Each satellite collection system is owned, operated, and maintained independently from the Discharger and collects wastewater from its respective service area. Ownership and operation of the satellite collection systems is further described in Fact Sheet Section II, Facility Description.

   Each satellite collection system is responsible for an ongoing program of maintenance and capital improvements for sewer lines and pump stations within its respective jurisdiction in order to ensure adequate capacity and reliability of the collection system. The responsibilities include managing overflows, controlling Infiltration and Inflow (I&I) and implementing collection system maintenance.

4. **Solids Management.** The dissolved air flotation process thickens the sludge from around 1% to 4% total solids before being pumped to the anaerobic digesters. Digested sludge from the anaerobic digesters is pumped to deep storage lagoons (10 feet) and drying beds. Biosolids are dried to about 75 percent (%) total solids prior to land application or use as daily cover at a sanitary landfill.

5. **Reclamation Activities.** The Discharger provides approximately 10 MGD of tertiary treated wastewater for non-potable purposes to over 550 customers throughout the service area via the South Bay Water Recycling Program, a fixed piping system operated under Regional Water Board Order No. 95-117. Customer uses include irrigation of golf courses, parks and playgrounds, farms, as well as industrial use. Recycled water is also available for construction use at remote locations. Approximately 0.10 MGD of tertiary treated wastewater is also used seasonally for landscape irrigation of 50 acres on-site.

6. **Storm Water Discharge.** The Discharger is not required to be covered under the State Water Board's statewide NPDES permit for storm water discharges associated with industrial activities (NPDES General Permit CAS000001) because all storm water captured within the Plant storm drain system is directed to the headworks of the Plant and treated to the standards contained in this Order.

Attachment B provides a map of the area around the Plant. Attachment C provides a flow schematic of the Plant.

C. **Legal Authorities.** This Order is issued pursuant to Clean Water Act (CWA) section 402 and implementing regulations adopted by the USEPA and chapters 5.5, division 7 of the California Water Code (CWC or Water Code, commencing with section 13370). It shall serve as an NPDES permit for point source discharges from this facility to surface waters. This Order also serves as Waste Discharge Requirements (WDRs) pursuant to article 4, chapter 4, division 7 of CWC (commencing with section 13260).

D. **Background and Rationale for Requirements.** The Regional Water Board developed the requirements in this Order based on information submitted as part of the application, through monitoring and reporting programs, and other available information. The Fact Sheet (Attachment F), which contains background information and rationale for Order requirements, is hereby incorporated into this Order and constitutes part of the findings for this Order. Attachments A through E and G through I are also incorporated into this Order.

E. **California Environmental Quality Act (CEQA).** Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of CEQA.

F. **Technology-Based Effluent Limitations.** CWA Section 301(b) and NPDES regulations at Title 40 of the Code of Federal Regulations (40 CFR) section 122.44 require that permits include conditions meeting applicable technology-based requirements at a minimum, and any more stringent effluent limitations necessary to meet applicable water quality standards. The discharge authorized by this Order must meet minimum federal technology-based requirements based on Secondary Treatment Standards at 40 CFR 133 and/or Best Professional Judgment (BPJ) pursuant to 40 CFR 125.3. A detailed discussion of development of the technology-based effluent limitations is included in the Fact Sheet (Attachment F).

G. Water Quality-Based Effluent Limitations (WQBELs). CWA section 301(b) and NPDES regulations at 40 CFR 122.44(d) require that permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards.

NPDES regulations at 40 CFR 122.44(d)(1)(i) mandate that permits include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives within a standard. Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective for the pollutant, WQBELs must be established using: (1) USEPA criteria guidance under CWA section 304(a), supplemented where necessary by other relevant information; (2) an indicator parameter for the pollutant of concern; or (3) a calculated numeric water quality criterion (WQC), such as a proposed state criterion or policy interpreting the state's narrative criterion, supplemented with other relevant information, as provided in 40 CFR 122.44(d)(1)(vi).

H. Water Quality Control Plans. *The Water Quality Control Plan for the San Francisco Bay Basin* (the Basin Plan) is the Regional Water Board's master water quality control planning document. It designates beneficial uses and water quality objectives (WQOs) for waters of the state, including surface waters and groundwater. It also includes programs of implementation to achieve WQOs. The Basin Plan was duly adopted by the Regional Water Board and approved by the State Water Resources Control Board (State Water Board), USEPA, and the Office of Administrative Law (OAL), as required. Requirements of this Order implement the Basin Plan.

The Basin Plan does not specifically identify present and potential beneficial uses for Artesian Slough but does identify beneficial uses for Coyote Creek, to which Artesian Slough is tributary. The Basin Plan states that the beneficial uses of any specifically identified water body generally apply to all its tributaries (Basin Plan tributary rule). State Water Board Resolution No. 88-63 establishes state policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply (MUN). Because of the tidal and marine influence on receiving waters for this discharge, total dissolved solids levels in Artesian Slough are expected to exceed 3,000 milligrams per liter (mg/L), thereby meeting an exception to Resolution No. 88-63. The MUN designation is therefore not applicable to Artesian Slough. Table 5 identifies beneficial uses that are applicable to Coyote Creek. These beneficial uses also apply to Artesian Slough in accordance with the Basin Plan tributary rule.

Table 5. Beneficial Uses of Coyote Creek

Discharge Point	Receiving Water Name	Beneficial Uses of Coyote Creek
001	Artesian Slough (tributary to Coyote Creek)	Groundwater Recharge (GWR) Cold Freshwater Habitat (COLD) Fish Migration (MIGR) Fish Spawning (SPWN) Warm Freshwater Habitat (WARM) Wildlife Habitat (WILD) Non-contact Water Recreation (REC-2) Contact Recreation (REC-1)

I. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** USEPA adopted the NTR on December 22, 1992, and later amended it on May 4, 1995, and November 9, 1999. About forty criteria in the NTR applied in California. On May 18, 2000, USEPA adopted the CTR. The CTR promulgated new toxics criteria for California and, in addition, incorporated the previously adopted NTR criteria that were applicable in the State. The CTR was amended on February 13, 2001. These rules contain WQC for priority pollutants.

J. **State Implementation Policy.** On March 2, 2000, the State Water Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP). The SIP became effective on April 28, 2000, with respect to the priority pollutant criteria promulgated for California by USEPA through the NTR and to the priority pollutant objectives established by the Regional Water Board in the Basin Plan. The SIP became effective on May 18, 2000, with respect to the priority pollutant criteria promulgated by USEPA through the CTR. The State Water Board adopted amendments to the SIP on February 24, 2005, that became effective on July 13, 2005. The SIP establishes implementation provisions for priority pollutant criteria and objectives and provisions for chronic toxicity control. Requirements of this Order implement the SIP.

K. **Compliance Schedules and Interim Requirements.** Section 2.1 of the SIP provides that, based on a discharger's request and demonstration that it is infeasible for an existing discharger to achieve immediate compliance with an effluent limitation derived from a CTR criterion, compliance schedules may be allowed in an NPDES permit. Unless an exception has been granted under Section 5.3 of the SIP, a compliance schedule may not exceed 5 years from the date that the permit is issued or reissued, nor may it extend beyond 10 years from the effective date of the SIP (or May 18, 2010) to establish and comply with CTR criterion-based effluent limitations. Where a compliance schedule for a final effluent limitation exceeds 1 year, the Order must include interim numeric limitations for that constituent or parameter. The Basin Plan allows compliance schedules and interim effluent limitations or discharge specifications to allow time to implement a new or revised WQO.

The State Water Board adopted Resolution No. 2008-0025 on April 15, 2008, titled "Policy for Compliance Schedules in National Pollutant Discharge Elimination System Permits", which includes compliance schedule policies for pollutants that are not addressed by the SIP. This policy has been approved by USEPA and OAL, and became effective on August 27, 2008, superseding the Basin Plan's compliance schedule policy.

This Order includes a compliance schedule for dioxin-TEQ as allowed by the Basin Plan, consistent with the State Water Board's new policy. A detailed discussion of the basis for the compliance schedules and interim effluent limitations and/or discharge specifications is included in the Fact Sheet (Attachment F).

L. **Alaska Rule.** On March 30, 2000, USEPA revised its regulation that specifies when new and revised state and tribal water quality standards become effective for CWA purposes. [65 Fed. Reg. 24641 (April 27, 2000) (codified at 40 CFR 131.21)]. Under the revised regulation (also known as the Alaska Rule), new and revised standards submitted to USEPA after May 30, 2000, must be approved by USEPA before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000, may be used for CWA purposes, whether or not approved by USEPA.

M. Stringency of Requirements for Individual Pollutants. This Order contains both technology-based and WQBELs for individual pollutants. The technology-based effluent limitations consist of restrictions on oil and grease, pH, total suspended solids (TSS), and carbonaceous biochemical oxygen demand (CBOD). Derivation of these technology-based limitations is discussed in the Fact Sheet (Attachment F). This Order's technology-based pollutant restrictions implement the minimum applicable federal technology-based requirements. In addition, this Order contains effluent limitations more stringent than the minimum federal technology-based requirements that are necessary to meet water quality standards.

WQBELs have been derived to implement WQOs that protect beneficial uses. Both the beneficial uses and the WQOs have been approved pursuant to federal law and are the applicable federal water quality standards. To the extent that toxic pollutant WQBELs were derived from the CTR, the CTR is the applicable standard pursuant to 40 CFR 131.38. The procedures for calculating the individual WQBELs for priority pollutants are based on the SIP, which was approved by USEPA on May 18, 2000. All beneficial uses and WQOs contained in the Basin Plan were approved under State law and submitted to USEPA prior to May 30, 2000. Any WQOs and beneficial uses submitted to USEPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless "applicable water quality standards for the purposes of the CWA" pursuant to 40 CFR 131.21(c)(1). Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the requirements of the CWA.

N. Antidegradation Policy. NPDES regulations at 40 CFR 131.12 require that State water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16. Resolution No. 68-16 incorporates the federal antidegradation policy where the federal policy applies under federal law and requires that existing quality of waters be maintained unless degradation is justified based on specific findings. The Basin Plan implements, and incorporates by reference, both the State and federal antidegradation policies. As discussed in detail in the Fact Sheet, the permitted discharge is consistent with the antidegradation provisions of 40 CFR 131.12 and State Water Board Resolution No. 68-16.

O. Anti-Backsliding Requirements. CWA sections 402(o)(2) and 303(d)(4) and NPDES regulations at 40 CFR122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. All effluent limitations established by this Order are at least as stringent as those established by the previous Order.

P. Endangered Species Act. This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code sections 2050 to 2097) or the federal Endangered Species Act (16 U.S.C.A. sections 1531 to 1544). This Order requires compliance with effluent limits, receiving water limits, and other requirements to protect the beneficial uses of waters of the state. The Discharger is responsible for meeting all requirements of applicable State and federal law pertaining to threatened and endangered species.

Q. **Monitoring and Reporting Program (MRP, Attachment E).** NPDES regulations at 40 CFR 122.48 require that all NPDES permits specify requirements for recording and reporting monitoring results. Water Code sections 13267 and 13383 authorize the Regional Water Board to require technical and monitoring reports. The MRP establishes monitoring and reporting requirements to implement federal and state requirements. This MRP is provided in Attachment E.

R. **Standard and Special Provisions.** Standard Provisions, which apply to all NPDES permits in accordance with 40 CFR 122.41, and additional conditions applicable to specified categories of permits in accordance with 40 CFR 122.42, are provided in Attachment D. The Discharger must comply with all standard provisions and with those additional conditions that are applicable under 40 CFR 122.42. The Regional Water Board has also included in this Order special provisions applicable to the Discharger. A rationale for the special provisions contained in this Order is provided in the attached Fact Sheet (Attachment F).

S. **Provisions and Requirements Implementing State Law.** No provisions or requirements in this Order are included to implement state law only. All provisions and requirements are required or authorized under the federal CWA; consequently, violations of these provisions and requirements are subject to the enforcement remedies that are available for NPDES violations.

T. **Notification of Interested Parties.** The Regional Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe WDRs for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Details of this notification are provided in the Fact Sheet (Attachment F).

U. **Consideration of Public Comment.** The Regional Water Board, in a public meeting, heard and considered all comments pertaining to the discharge. Details of the public hearing are provided in the Fact Sheet (Attachment F).

IT IS HEREBY ORDERED that this Order supersedes Order No. R2-2003-0085 except for enforcement purposes, and, in order to meet the provisions contained in Division 7 of the California Water Code (commencing with section 13000) and regulations adopted thereunder, and the provisions of the federal Clean Water Act (CWA) and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements in this Order.

III. DISCHARGE PROHIBITIONS

A. Discharge of treated wastewater at a location or in a manner different from that described in this Order is prohibited.

B. The bypass of untreated or partially treated wastewater to waters of the United States is prohibited, except as provided for in the conditions stated in Subsections I.G.2 and I.G.4 of Attachment D of this Order.

Blended wastewater is biologically treated wastewater blended with wastewater that has been diverted around biological treatment units or advanced treatment units. Such discharges are approved under the bypass conditions stated in 40 CFR 122.41(m)(4) when (1) the Discharger's peak secondary effluent flow exceeds the filter capacity of 250 MGD, (2) the discharge complies

with the effluent and receiving water limitations contained in this Order, and (3) the Discharger is in compliance with Provision VI.C.5.c. Furthermore, the Discharger shall operate the facility as designed and in accordance with the Operation & Maintenance Manual developed for the Plant. This means that the Discharger shall optimize storage and use of equalization units, and shall fully utilize the advanced treatment units, if applicable. The Discharger shall report incidents of blended effluent discharges in routine monitoring reports and shall conduct monitoring of these discharges as specified in the attached MRP (**Attachment E**).

C. The average dry weather influent flow as measured at monitoring station INF-001, described in the attached MRP (Attachment E), shall not exceed 167 MGD, determined during any five-weekday period during the months of June through October.

D. Any sanitary sewer overflow that results in a discharge of untreated or partially treated wastewater to waters of the United States is prohibited.

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations for Conventional and Non-Conventional Pollutants – Discharge Point 001

The Discharger shall maintain compliance with the following effluent limitations at Discharge Point 001 with compliance measured at Monitoring Location EFF-001 as described in the MRP (Attachment E).

1. CBOD, TSS, Oil and Grease, pH, Total Chlorine Residual, Turbidity, and Total Ammonia

Table 6. Effluent Limitations for CBOD, TSS, Oil and Grease, pH, Chlorine Residual, Turbidity, and Total Ammonia – Discharge Point 001

Parameter	Units[1]	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
$CBOD_5$[2]	mg/L	10	---	20	---	---
TSS	mg/L	10	---	20	---	---
Oil and Grease	mg/L	5	---	10	---	---
pH[3]	standard units	---	---	---	6.5	8.5
Total Chlorine Residual[4]	mg/L	---	---	---	---	0.0
Turbidity	NTU	---	---	---	---	10
Total Ammonia	mg/L as nitrogen	3	---	8	---	---

Footnotes for Table 6:

(1) Unit abbreviation:

mg/L= milligrams per liter

NTU = Nephelometric turbidity units

(2) The Discharger may elect to monitor CBOD in lieu of BOD, as defined in the latest edition of *Standard Methods for the Examination of Water and Wastewater.*

(3) If the Discharger monitors pH continuously, pursuant to 40 CFR 401.17, the Discharger shall be in compliance with the pH limitation specified herein, provided that both of the following conditions are satisfied: (i) the total time during which the pH values are outside the required range of pH values shall not exceed 7 hours and 26 minutes in any calendar month; and (ii) no individual excursion from the range of pH values shall exceed 60 minutes.

(4) This requirement is defined as below the limit of detection in standard test methods, as defined in the latest edition of *Standard Methods for the Examination of Water and Wastewater*. The Discharger may elect to use a continuous on-line monitoring system(s) for measuring flows, sodium hypochlorite, and sodium bisulfite dosage (including a safety factor) and concentration to prove that chlorine residual exceedances are false positives. If convincing evidence is provided, Regional Water Board staff will conclude that these false positive chlorine residual exceedances are not violations of the effluent limitation.

2. **$CBOD_5$ and TSS 85% Percent Removal.** The average monthly percent removal of $CBOD_5$ and TSS values, by concentration, shall not be less than 85 percent.

3. **Enterococcus Bacteria.** The treated wastewater shall meet the following limits of bacteriological quality:

   The 30-day geometric mean value for all samples analyzed for enterococcus bacteria shall not exceed 35 colonies per 100 mL.

B. Effluent Limitations for Toxic Pollutants – Discharge Point 001

The Discharger shall maintain compliance with the following effluent limitations at Discharge Point 001, with compliance measured at Monitoring Location EFF-001 as described in the MRP (Attachment E).

Table 7. Effluent Limitations for Toxic Pollutants[1, 2]

Pollutant	Units[4]	Effluent Limitations	
		Average Monthly Effluent Limitation (AMEL)	Maximum Daily Effluent Limitation (MDEL)
Copper	µg/L	11	19
Nickel	µg/L	25	33
Cyanide	µg/L	5.7	14
Dioxin-TEQ[3]	µg/L	1.4×10^{-8}	2.8×10^{-8}
Heptachlor	µg/L	0.00021	0.00042
Tributyltin	µg/L	0.0061	0.012

Footnotes for Table 7:

(1) a. Limitations apply to the average concentration of all samples collected during the averaging period (daily = 24-hour period; monthly = calendar month).

b. All limitations for metals are expressed as total recoverable metal.

(2) A daily maximum or average monthly value for a given constituent shall be considered noncompliant with the effluent limitations only if it exceeds the effluent limitation and the Reporting Level for that constituent. As outlined in Section 2.4.5 of the SIP, Table 8, below indicates the Minimum Level (ML) upon which the Reporting Level is based for compliance determination purposes. In addition, in order to perform reasonable potential analyses for future permit reissuances, the Discharger shall make every effort to use methods with MLs lower than the applicable WQOs or water quality criteria; or, in cases where the available MLs exceed the WQO, the lowest available ML. An ML is the concentration at which the entire analytical system must give a recognizable signal and

acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method specified sample weights, volumes, and processing steps have been followed.

(3) Final effluent limitations for dioxin-TEQ shall become effective starting June 1, 2019.

Table 8. MLs for Pollutants with Effluent Limitations

Pollutant	ML	Units[4]
Copper	2	µg/L
Nickel	1	µg/L
Cyanide	5	µg/L
Heptachlor	0.01	µg/L
Dioxin-TEQ	As specified below	
2,3,7,8-TetraCDD	5	pg/L
1,2,3,7,8-PentaCDD	25	pg/L
1,2,3,4,7,8-HexaCDD	25	pg/L
1,2,3,6,7,8-HexaCDD	25	pg/L
1,2,3,7,8,9-HexaCDD	25	pg/L
1,2,3,4,6,7,8-HeptaCDD	25	pg/L
OctaCDD	50	pg/L
2,3,7,8-TetraCDF	5	pg/L
1.2.3,7,8-PentaCDF	25	pg/L
2,3,4,7,8-PentaCDF	25	pg/L
1,2,3,4,7,8-HexaCDF	25	pg/L
1,2,3,6,7,8-HexaCDF	25	pg/L
1,2,3,7,8,9-HexaCDF	25	pg/L
2,3,4,6,7,8-HexaCDF	25	pg/L
1,2,3,4,6,7,8-HeptaCDF	25	pg/L
1,2,3,4,7,8,9-HeptaCDF	25	pg/L
OctaCDF	50	pg/L
Tributyltin	0.005	µg/L

(4) Unit Abbreviation
mg/L= milligrams per liter
µg/L = micrograms per liter
pg/L = picograms per liter

C. Interim Effluent Limitation for Dioxin-TEQ – Discharge Point 001

The Discharger shall comply with the following interim effluent limit for dioxin-TEQ at Discharge Point 001, with compliance measured at Monitoring Location EFF-001 as described in the MRP (Attachment E). The interim limit for dioxin-TEQ shall remain in effect until May 31, 2019. Starting June 1, 2019, the final effluent limit in Table 7 for dioxin-TEQ shall become effective.

Table 9. Interim Effluent Limitations for Dioxin-TEQ

Pollutant	Monthly Average Effluent Limit (µg/L)
Dioxin-TEQ	6.3×10^{-5}

D. Whole Effluent Toxicity

1. Whole Effluent Acute Toxicity:

a. Representative samples of the effluent at Discharge Point 001 with compliance measured at EFF-001 as described in the MRP (Attachment E) shall meet the following limits for acute toxicity. Bioassays shall be conducted in compliance with Section V.A of the MRP (Attachment E).

(1) an eleven (11)-sample median value of not less than 90 percent survival, and

(2) an eleven (11)-sample 90th percentile value of not less than 70 percent survival.

b. These acute toxicity limitations are further defined as follows:

(1) **11-sample median**. A bioassay test showing survival of less than 90 percent represents a violation of this effluent limit, if five or more of the past ten or less bioassay tests show less than 90 percent survival.

(2) **11-sample 90th percentile.** A bioassay test showing survival of less than 70 percent represents a violation of this effluent limit, if one or more of the past ten bioassay tests show less than 70 percent survival.

c. Bioassays shall be performed using the most up-to-date USEPA protocol and the most sensitive species as specified in writing by the Executive Officer based on the most recent screening test results. Bioassays shall be conducted in compliance with *Methods for Measuring the Acute Toxicity of Effluents and Receiving Water to Freshwater and Marine Organisms*, currently 5th Edition (EPA-821-R-02-012), with exceptions granted to the Discharger by the Executive Officer and the Environmental Laboratory Accreditation Program (ELAP) upon the Discharger's request with justification.

2. Whole Effluent Chronic Toxicity

a. Compliance with the Basin Plan narrative chronic toxicity objective shall be demonstrated according to the following tiered requirements based on results from representative samples of the effluent at Discharge Point 001, with compliance measured at EFF-001 as described in the MRP (Attachment E), meeting test acceptability criteria and Section V.B of the MRP (Attachment E). Failure to conduct the required toxicity tests or a TRE within a designated period may result in the establishment of effluent limitations for chronic toxicity.

(1) Conduct routine monitoring.

(2) Conduct accelerated monitoring after exceeding a three sample median of 1 chronic toxicity unit (TUc[1]) or a single-sample maximum of 2 TUc or greater.

[1] A TUc equals 100 divided by the no observable effect level (NOEL). The NOEL is determined from IC, EC, or NOEC values. These terms, their usage, and other chronic toxicity monitoring program requirements are defined in more detail in

(3) Return to routine monitoring if accelerated monitoring does not exceed the "trigger" in (2), above.

(4) If accelerated monitoring confirms consistent toxicity above either "trigger" in (2), above, initiate toxicity identification evaluation/toxicity reduction evaluation (TIE/TRE) procedures in accordance with a workplan submitted in accordance with Provision VI.C.2.e.

(5) Return to routine monitoring after appropriate elements of TRE workplan are implemented and either the toxicity drops below "trigger" levels in (2), above, or, based on the results of the TRE, the Executive Officer authorizes a return to routine monitoring.

b. The Discharger shall conduct routine monitoring with the test species and protocols specified in Section V.B of the MRP (Attachment E). The Discharger shall also perform chronic toxicity screening phase monitoring as described in the Appendix E-1 of the MRP (Attachment E). Chronic Toxicity Monitoring Screening Phase Requirements, Critical Life Stage Toxicity Tests and definitions of terms used in the chronic toxicity monitoring are identified in Appendices E-1 and E-2 of the MRP (Attachment E). In addition, bioassays shall be conducted in compliance with the most recently promulgated test methods, *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms,* currently third edition (EPA-821-R-02-014), and *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms,* currently fourth Edition (EPA-821-R-02-013), with exceptions granted by the Executive Officer and the Environmental Laboratory Accreditation Program (ELAP).

E. Land Discharge Specifications

Not Applicable.

F. Reclamation Specifications

Regional Water Board Order No. 95-117 established water reclamation requirements for the Discharger.

V. RECEIVING WATER LIMITATIONS

A. Surface Water Limitations

1. Receiving water limitations are based on WQOs contained in the Basin Plan and are a required part of this Order. The discharges shall not cause the following in Artesian Slough, Coyote Creek, or South San Francisco Bay.

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the MRP (**Attachment E**). Monitoring and TRE requirements may be modified by the Executive Officer in response to the degree of toxicity detected in the effluent or in ambient waters related to the discharge.

a. Floating, suspended, or deposited macroscopic particulate matter or foams;

b. Bottom deposits or aquatic growths to the extent that such deposits or growths cause nuisance or adversely affect beneficial uses;

c. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;

d. Visible, floating, suspended, or deposited oil and other products of petroleum origin; and

e. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on wildlife, waterfowl, or other aquatic biota, or which render any of these unfit for human consumption, either at levels created in the receiving waters or as a result of biological concentration.

2. The discharge of waste shall not cause the following limits to be exceeded in waters of the State within one foot of the water surface:

a. Dissolved Oxygen	5.0 mg/L, minimum Furthermore, the median dissolved oxygen concentration for any three consecutive months shall not be less than 80% of the dissolved oxygen content at saturation. When natural factors cause concentrations less than that specified above, the discharge shall not cause further reduction in ambient dissolved oxygen concentrations.
b. Dissolved Sulfide	Natural background levels
c. pH	The pH shall not be depressed below 6.5 or raised above 8.5. The discharge shall not cause changes greater than 0.5 pH units in normal ambient pH levels.
d. Nutrients:	Waters shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses.

3. The discharge shall not cause a violation of any water quality standard for receiving waters adopted by the Regional Water Board or the State Water Board as required by the CWA and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to CWA section, or amendments thereto, the Regional Water Board may revise and modify this Order in accordance with such more stringent standards.

B. Groundwater Limitations

Not Applicable.

VI. PROVISIONS

A. Standard Provisions

1. **Federal Standard Provisions.** The Discharger shall comply with Federal Standard Provisions included in Attachment D of this Order.

2. **Regional Water Board Standard Provisions.** With the exception of Section A.13 concerning bypass, the Discharger shall comply with all applicable items of the *Standard Provisions and Reporting Requirements for NPDES Surface Water Discharge Permits*, August 1993 (Attachment G, Regional Water Board Standard Provisions), including any amendments thereto. Where provisions or reporting requirements specified in this Order and Attachment G are different from equivalent or related provisions or reporting requirements given in the Standard Provisions in Attachment D, the specifications of this Order and/or Attachment G shall apply in areas where those provisions are more stringent. Duplicative requirements in the federal Standard Provisions (Attachment D) and the Regional Water Board Standard Provisions (Attachment G) are not separate requirements. A violation of a duplicative requirement does not constitute two separate violations.

B. MRP Requirements

The Discharger shall comply with the MRP, and future revisions thereto, in Attachment E of this Order. The Discharger shall also comply with the requirements contained in *Self Monitoring Programs, Part A*, August 1993 (Attachment G).

C. Special Provisions

1. **Reopener Provisions**
   The Regional Water Board may modify or reopen this Order prior to its expiration date in any of the following circumstances as allowed by law:

   a. If present or future investigations demonstrate that the discharge(s) governed by this Order will have, or will cease to have, a reasonable potential to cause or contribute to adverse impacts on water quality and/or beneficial uses of the receiving waters.

   b. If new or revised WQOs or total maximum daily loads (TMDLs) come into effect for the San Francisco Bay estuary and contiguous water bodies (whether statewide, regional, or site-specific). In such cases, effluent limitations in this Order will be modified as necessary to reflect updated WQOs and waste load allocations in TMDLs. Adoption of effluent limitations contained in this Order is not intended to restrict in any way future modifications based on legally adopted WQOs, TMDLs, or as otherwise permitted under federal regulations governing NPDES permit modifications.

   c. If translator or other water quality studies provide a basis for determining that a permit condition(s) should be modified.

   d. If administrative or judicial decision on a separate NPDES permit or WDR that addresses requirements similar to this discharge.

e. If average dry weather discharge flow (as determined as the lowest average effluent flow for any three consecutive months between the months of May and October) exceeds 120 MGD, in accordance with State Water Board Resolution No. 91-151.

f. Or as otherwise authorized by law.

The Discharger may request permit modification based on the above. The Discharger shall include in any such request an antidegradation and antibacksliding analysis.

2. Special Studies, Technical Reports and Additional Monitoring Requirements

a. Effluent Characterization for Selected Constituents

The Discharger shall continue to monitor and evaluate the discharge from Discharge Point 001 (measured at EFF-001) for the constituents listed in Enclosure A of the Regional Water Board's August 6, 2001, Letter according to the sampling frequency specified in the attached MRP (Attachment E). Compliance with this requirement shall be achieved in accordance with the specifications stated in the Regional Water Board's August 6, 2001, Letter under Effluent Monitoring for Major Dischargers (Attachment G). The Discharger shall evaluate on an annual basis if concentrations of any constituents increase over past performance. The Discharger shall investigate the cause of the increase. The investigation may include, but need not be limited to, an increase in the effluent monitoring frequency, monitoring of internal process streams, and monitoring of influent sources. This requirement may be satisfied through identification of these constituents as "pollutants of concern" in the Discharger's Pollutant Minimization Program, described in Provision VI.C.3, below. A summary of the annual evaluation of data and source investigation activities shall also be provided in the annual self-monitoring report.

A final report that presents all the data shall be submitted to the Regional Water Board no later than 180 days prior to the Order expiration date. This final report shall be submitted with the application for permit reissuance.

b. Ambient Background Receiving Water Study

The Discharger shall collect or participate in collecting background, receiving water monitoring data for priority pollutants that are required to perform a reasonable potential analysis and to calculate effluent limitations. Data for conventional water quality parameters (pH, salinity, and hardness) shall be sufficient to characterize these parameters in the receiving water at a point after the discharge has mixed with the receiving waters. This provision may be met through participation in the Collaborative Bay Area Clean Water Agencies (BACWA) Study or a similar ambient monitoring program for San Francisco Bay, such as the Regional Monitoring Program. This Order may be reopened, as appropriate, to incorporate effluent limits or other requirements based on Regional Water Board review of these data.

The Discharger shall submit, or cause to have submitted on its behalf, a final report that presents all such data to the Regional Water Board 180 days prior to expiration of this

Order. This final report shall be submitted prior to or with the application for permit reissuance.

c. Avian Botulism Control Program

The Discharger shall continue to monitor Artesian Slough, Coyote Creek, and Alviso Slough for the presence of avian botulism, and to control outbreaks through the prompt collection of sick and dead vertebrates. The Discharger shall continue to submit annual reports by February 28 each year regarding its Avian Botulism Control Program to the Regional Water Board, the California Department of Fish and Game (CDFG), and the U.S. Fish and Wildlife Service (USFWS).

d. Salt Marsh Vegetative Assessment

Two times during the anticipated term of the permit, in 2010 and 2012, the Discharger shall assess marsh habitat and document changes to/conversion of marsh habitat to determine potential impacts to endangered species. Areas identified for assessment shall be areas that are or could reasonably be affected by the discharge from the Plant, and shall include, but need not be limited to, Artesian Slough, Coyote Creek downstream to Calaveras Point and upstream to the former Fremont airport, Coyote Slough, and Mud Slough downstream from the former Union Sanitary District wastewater treatment facility. The Discharger shall also assess vegetation at a reference site unaffected by the discharge.

The status of marsh habitat, including changes to and conversion of marsh habitat within the study areas, will be assessed in consultation with the USFWS by comparing marsh habitat conditions to conditions documented in previous habitat assessments, including the 1989 baseline footprints. If additional analysis of marsh habitat is needed based on this comparison, and after consideration of other factors that may influence the condition of salt marsh habitat, a Habitat Evaluation Procedure (HEP) shall be completed using the same assumptions as the 1990 modified HEP performed by the Regional Water Board, and in consultation with USFWS and CDFG staff. The Discharger shall submit its marsh habitat assessment reports to the Regional Water Board, the CDFG, and the USFWS-Sacramento office by February 28, 2011, and February 28, 2013, respectively. These reports may contain discussion of ecological factors believed to affect salt marsh habitat conversion that are unrelated to the Discharger's effluent.

e. Chronic Toxicity Reduction Evaluation (TRE) Requirements

(1) The Discharger shall prepare a generic TRE work plan within 90 days of the effective date of this Order to be ready to respond to toxicity events. The Discharger shall review and update the work plan as necessary to remain current and applicable to the discharge and discharge facilities.

(2) Within 30 days of exceeding either trigger for accelerated monitoring as specified in IV.D.2.a.(2), the Discharge shall submit to the Regional Water Board a TRE work plan, which should be the generic work plan revised as appropriate for this toxicity event after consideration of available discharge data.